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MASSACHUSETTS' INLAND WETLANDS



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IN THE BEGINNING

Bogs, marshes, swamps, river meadows are all inland wetlands. More precisely, however, a wetland is a stage in the life of a pond or lake. The classic example of how a wetland is formed: In its "youth" the bottom of a pond is covered with plants. As these plants die and decompose, they combine with dust and soil dropped by wind and rain to form a mat of mud. Gradually the mat thickens, giving rise to vegetation such as sedge grasses and pond lilies, which lie just below the surface. The cycle of growth and decay continues and the mat thickens more and more. Over a period of years, perhaps even centuries, the pond begins to fill in. Grasses, bulrushes, and eventually woods emerge from the shallow water. Ultimately, if not checked by other environmental factors, the wetland will become a field or forest.

THE WETLANDS' WORTH

Inland wetlands act as natural catch basins. By storing then releasing rainwater slowly, wetlands prevent flash floods downstream — floods that could seriously damage roads, houses, and factories. In the U.S. every year there is more than \$700 million in flood damage. The U.S. Army Corps of Engineers — which in the last 30 years has



In 1969, with the passage of the Conservation Restriction Act, private initiative to save the wetlands was given a big boost. This statute provides a range of ways whereby private citizens can protect their land without loss of value, enjoyment or title. Owners can transfer among themselves, or to town, state, federal or non-profit organizations the rights to keep their wetlands open and undeveloped.

However the wetlands are still vulnerable. Many land owners are unaware of the economic value of marshes. The Inland Protection Act is difficult to administer, particularly because of the inadequate number of staff to do the job. The fact is the developer's hand is quicker than the State's eye. And once paved over you can never bring a wetland back to life.

Under the present laws it is estimated that it will take 10 years before the 300,000 acres of inland wetlands (6% of the State's area), or what is left of them, are protected. One small step toward this protection is the Department of Natural Resources' recent acquisition of the 1844-acre Acushnet Cedar Swamp in the New Bedford-Dartmouth area. Outright acquisition by an environmental government agency is the best protection for wetlands preservation. Hopefully more funds will be made available in the future for increasing the number of acquisitions.

Besides legal muscle, the State also provides financial support for wetlands protection. The Natural Resources' Division of Conservation Services administers a "self-help" program which, with Federal money, reimburses town conservation commissions up to 75% for the purchase of wetlands. Towns can also help themselves by utilizing such local control devices as floodplain zoning, and conservation easement or restrictions. But if Massachusetts' wetlands are to be permanently protected, private citizens — through such organizations as local conservation commissions, conservation trusts and water-shed associations — must help increase public wetlands acquisitions. In the final analysis, it is up to the people to understand and care about saving the wetlands.

spent more than \$4 billion in flood control projects — now advocates that one of the most effective and economical approaches to flood control is the acquisition of large natural wetlands. This is far less expensive than dredging channels and constructing and maintaining dams.

Besides flood control, the slow release of the water from the wetland enables some of the stored water time to sink deep into the ground where it replenishes ground-water supplies, keeps springs bubbling, and fills wells. Draining, filling, or paving over a marsh or swamp will destroy its natural ability to store water. Instead the water will rapidly run off wasted over the surface of the earth — lost to reservoirs, lost to agriculture, useless to industry. In dollar terms — millions down the drain.

Contrary to popular conception, a wetland is far from a wasteland or breeding place for flies and mosquitoes. [Acre for acre wetlands are the most productive plant and wildlife environments in the world, providing food, shelter, and nesting grounds for countless species of fish, birds and mammals.] Whenever a wetland is filled in, the delicate web linking wetlands to streams and rivers and then to the sea is strained or torn apart. The quality of river water declines as water flow



becomes uneven; air pollution over cities worsens as trees and plants, which previously aided in cleansing the air, have been removed; and the marine life of the estuary decreases, casualties of the altered activities upstream.

Then too, the aesthetics of wetlands affects the economics of towns. Compare the property value in towns where there are considerable wetlands with those of municipalities in which the marshes have been filled in for housing, roads and parking. Perhaps most important wetlands provide opportunities for hunting, fishing, biking, bird-watching, blueberry picking — for so many different kinds of outdoor recreation. Pave over a “wetland wasteland” and you destroy one more of the fast disappearing opportunities for man to breathe, smell and feel a natural environment.

DESTRUCTION

Most conspicuously, wetlands are destroyed by draining, dredging, or filling for housing, agriculture, roads, or dumps. Water pollution from communities, industry and agriculture constantly menace the wetlands. But destruction of wetlands also goes on insidiously. Such trivial acts as clearing a channel through the cattails, spraying pesticides, filling for a dock, cutting weeds, spilling a little oil — all serve to disrupt the delicate ecology of the wetlands. In Massachusetts, one percent or 3100 acres per year of inland wetlands are destroyed. Worse still, one recent study concludes that with pressure to develop wetlands on the upswing, 82,000 acres are imperiled. That would be equivalent to the destruction of an area the size of Greater Boston — from Revere in the north, Newton in the west to Mattapan in the south.

THE CONTINUING BATTLE

The battle to save inland wetlands began in 1965 with the passage of the Hatch Act — a protective law designed to slow down the destruction by placing restrictions on filling and dredging of wetlands. In 1968 the Inland Protection Act, a law with more teeth, was passed. This gave the Commissioner of Natural Resources some authority to prohibit development on wetlands before plans for their alteration are undertaken.

FOR FURTHER INFORMATION REGARDING CHAPTER
131-SECTION 40, THE HATCH ACT, OR CHAPTER 131-
SECTION 40A, THE INLAND WETLANDS ACT, WRITE:

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